MICROLITHOGRAPHY RETICLES INCLUDING HIGH-CONTRAST RETICLE-IDENTIFICATION CODES, AND APPARATUS AND METHODS FOR IDENTIFYING RETICLES BASED ON SUCH CODES

Abstract of the Disclosure

Microlithography reticles are disclosed that include a high-contrast reticle-identification code (bar code). The bar code is configured as a pattern (usually linearly arrayed) of high-scattering regions (bar-code elements) each exhibiting a relatively high degree of reflection-scattering of irradiated probe light. The high-scattering regions are separated from one another by respective low-scattering regions each exhibiting a relatively low degree of reflection-scattering of incident probe light. For example, the low-scattering regions have smooth surfaces from which very little probe light is reflection-scattered, wherein each high-scattering region includes multiple scattering features such as line, channels, projections, or the like that provide multiple edges and/or points that reflection-scatter probe light. The edges in a high-scattering region can be arranged with a line-space (L/S) pitch that is below the resolution limit of an optical system that delivers probe light to the bar code and detects probe light reflection-scattered from the bar code.